GP2192

PATENT
09/966,004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Group Art Unit: 2192
                                       : Examiner: J. J. Romano
Arnold J. Daks et al.   : Intellectual Property
Serial No: 09/966,004   : Law Department - 4054
Filed: 08/28/001   : International Business
Title: A COMPUTER CONTROLLED :   Machines Corporation
DISPLAY SYSTEM FOR TRACKING   :   11400 Burnet Road
THE DEVELOPMENT OF SOFTWARE   :   Austin, Texas 78758
PRODUCTS HAVING A PLURALITY   :   Customer No. 32,329
OF DEVELOPMENT LINES THROUGH :
THE MONITORING OF SEQUENCES   :
OF CHECKPOINTS RESPECTIVELY   :
IN SAID LINES   :
Date: _____   :

CERTIFICATE OF MAILING

I hereby certify that this correspondence including a Brief
on Appeal (in triplicate), and this transmittal letter
(duplicate) is being deposited with the United States Postal
Service as first class mail in an envelope addressed to:
Commissioner for Patents, P.O. Box 1450 Alexandria, VA
22313-1450 on _____03/06/06_____.

_____J.A.KRAFT_____

Signature _____ Date 3/06/06

TRANSMITTAL OF APPELLANTS' BRIEF UNDER 37 CFR 1.192(a)

AUS920010767US1   1

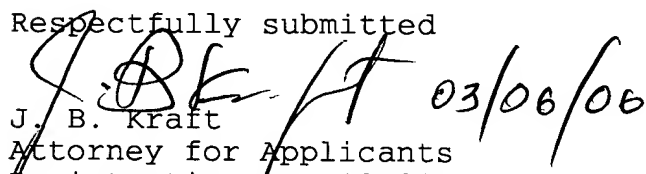Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Sir:

Attached is Appellants' Brief (in triplicate) in this
Appeal from a decision of the Examiner dated October 6, 2005
finally rejecting claims 1-31.

Please charge our Deposit Account No. 09-0447 in the
amount of $500.00 for the Appeal Brief fee. (a duplicate of
this transmittal is included.)

The Commissioner is hereby authorized to charge any
additional fee which may be required or credit any
overpayment to Deposit Account No. 09-0447.

Respectfully submitted

J. B. Kraft   03/06/06
Attorney for Applicants
Registration No. 19,226
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PLEASE MAIL ALL CORRESPONDENCE TO:

> **Jeffrey S. LaBaw**
> **IPLaw Dept. - IMAD 4054**
> **IBM Corporation**
> **11400 Burnet Road**
> **Austin, Texas 78758**

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	:	Examiner: J. J. Romano
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OF CHECKPOINTS RESPECTIVELY	:	
IN SAID LINES	:	
Date: __3/06/06__	:	

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

    This is an Appeal from the Final Rejection of Claims
1-31 of this Application. An Appendix containing a copy of
each of the Claims is attached.

I.   Real Party in Interest

    The real party in interest is International Business
Machines Corporation, the assignee of the present
Application.

II.   Related Appeals and Interferences
                    None

AUS920010767US1   1

III. Status of Claims

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

There are 31 claims in this Application.

B. STATUS OF ALL THE CLAIMS

1. Claims cancelled: None.
2. Claims withdrawn from consideration but not cancelled: None.
3. Claims pending: 1-31.
4. Claims allowed: None.
5. Claims rejected: 1-31.

C. CLAIMS ON APPEAL

Claims on appeal: Claims 1-31.

IV. Status of Amendment

No amendments have been filed after Final Rejection.

V.   Summary of Invention

Claim 1 which is annotated with respect to the Specification and Drawings has the same elements as all of the independent claims herein: 1, 8, 15, 22, 25, 28, and 31.

1.   A computer controlled display system (Fig. 3, described on Page 9, lines 3-18, for tracking the development of complex software products having a plurality of developmental lines (Fig. 3 lines 51, described on page 9, line 32 to page 10, line 5) comprising:

means for setting in each of said plurality of developmental lines, a sequence of checkpoints; (checkpoints: 1-5; 1A-3A; 6A-6C; 7A; 7-12; and 21-24, Fig. 3, described page 10, lines 10-13)

means for tracking each of said developmental lines to determine the reached checkpoints; (checkpoints 1, 2A, 7A, 7-9, 21 and 22, Fig. 4, described on page 10, lines 14-18); and

means for simultaneously displaying said plurality of developmental lines and indicating said reached checkpoints (page 10, lines 14-18 indicates the checkpoints reached in plurality of developmental lines 51, Fig. 4).

In addition, dependent claims 6, 13, and 20, to be argued separately, set forth an implementation: when the checkpoints are modified, the modification may involve switching of actions from one of the plurality of lines to another (page 11, lines 9-11, referring to Fig. 6 and page 12, lines 9-12, referring to Fig. 9, steps 76-78).

Dependent claims 23, 24, 26, 27, 29, and 30, to be argued separately, describe an implementation wherein a set of attributes of the checkpoint are displayed at the checkpoint (page 12, lines 7-9 referring to Fig. 9, step 76).

Dependent claims 7, 14, and 21 to be argued separately set forth a limitation wherein the means for tracking are remote from the display on which the plurality of lines are displayed (page 7, lines 7-12 referring to Fig. 10

VI. Grounds of Rejection

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are rejected as anticipated under 35 USC 102(b) by Song et al. US5,949,999.

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are rejected as obvious over Song et al. under 35 U.S.C. 103(a).

Claims 7, 14, and 21 are rejected as obvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a).

VII. Argument

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated under 35 USC 102(b) by Song et al. US5,949,999.

Song is not an anticipatory reference under 35 USC 102. In order to reject under 35 USC 102, the reference must teach every element of the invention without modification. Applicants submit that Song does not do this. The present invention claims the combination, in tracking the development of software products, (as set forth in claim 1) of means for setting and displaying a sequence of checkpoints in each of a plurality of developmental lines and means for determining which checkpoints have reached in each developmental line and indicating the reached checkpoints on the simultaneous display of a plurality developmental development lines. While Song is concerned with software development and may permit user access to what may be considered developmental lines, Song does not appear to be concerned with a collective display of a plurality of

developmental lines each with indicated reached and unreached checkpoints.

Please consider typical claim 1 in this connection:

1. A computer controlled display system for tracking the development of complex software products having a plurality of developmental lines comprising:
means for setting in each of said plurality of developmental lines, a sequence of checkpoints;
means for tracking each of said developmental lines to determine the reached checkpoints; and
means for simultaneously displaying said plurality of developmental lines and indicating said reached checkpoints.

Song does not teach setting in each of a plurality of developmental lines a sequence of checkpoints. The Examiner points to col 3, lines 57 and 58. This a very vague citation. It deals with a procedure for producing software documents for a software development and testing process. There is some very general statement about defining procedures and documents required during the project execution. It is submitted that such a vague and general statement does not meet the 35 USC 102 requirement that the reference has to teach without modification the claimed element: "setting in each of said plurality of developmental lines, a sequence of checkpoints"
   The Examiner also cites Fig. 3 in Song for this teaching. Fig. 3 has a very short and general description of the measurement of a variety of elements in a software support document at various stages in the development of a product component, and little else. It is not seen what the Examiner regards as his check points. Does the Examiner intend that every element of every stage in the development of the product component is a check point? Is so, how is

"<u>tracking each</u> of said developmental lines <u>to determine the</u> <u>reached checkpoints</u>" carried out in Song 's Fig. 3 which the Examiner also cites for disclosing this last element?

The Examiner cites col 3, lines 58-62 as teaching this setting of check points. At best this section state that a marked or designated activity indicates that the software support document for that activity is available. As stated in col 2, lines 8-23, these support software documentation is often required by law. It is submitted that indicating the existence of documentation for a given activity at a given phase of a single component is not "<u>simultaneously</u> <u>displaying</u> said plurality of developmental lines and <u>indicating said reached checkpoints</u>". Figure 3 in <u>Song</u> at most shows <u>stages in the documentation, of a single</u> <u>developmental line</u> and does <u>not disclose the tracking check</u> <u>point stages in a plurality of developmental lines</u>.

<u>Examiner's Argument:</u>

The Examiner insists that Fig. 3 of Song shows the tracking of check points simultaneously in multiple product developmental lines. In order to read Song on the claims, the Examiner argues (in the bottom paragraph of the final rejection) that there are several components listed in Fig. 2, e.g. Systems Functions,.....Patient and File Functions, ...Filming, ...etc., and that the multiple check points of this plurality of components are then tracked in the columns of Fig. 3. The description in Song does not support such an connection and interpretation of Fig. 2 with respect to Fig. 3. Applicants submit Fig. 3 shows the documentation at multiple development stages of a single component or product. Col 4, lines 53-55, indicates that the Fig. 3 relates to the status of documentation of a highlighted selected component. "Each column in the panel shows the

status of the documentation within one development phase" (col 4, lines 59-60). It is submitted that each column represents one development phase of a one component, and that all of the columns in Fig. 3 collectively represent several developmental stages of that component. Each column represents a list of the documents which may be available for that Stage (column). A reading of the headings in Fig. 3 would make it clear to one skilled in the art that anything analogous to a product development line would be progressing in the header (X-axis) direction sequence: Requirement > Concept > Design > Implementation > Integration as the development line progressed.

It is submitted that, for the reasons set forth hereinabove, the Examiner's difficult interpretation of the general and vague disclosure of Song does not meet the very specific requirements of 35 USC 102 that the reference must clearly teach every element of the invention without modification. It is submitted that Song fails to disclose every element of the invention without modification as required for a rejection under 35 USC 102 of claims 1-5, 8-12, 15-19, 22, 25 and 28.

The rejection of claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 as obvious over Song et al under 35 U.S.C. 103(a) is also respectfully traversed.

Dependent claims 6, 13, and 20 are submitted to be patentable over Song for all of the reasons set forth above for the claims from which they depend. In addition, these claims set forth an implementation when modifying the actions required of checkpoints, the modification may include switching of the actions to other of said plurality of developmental lines. The Examiner concedes that Song does not disclose this but relies on some vague statements

in Song about changes to contend that such switching is
suggested by Song. Applicants can find nothing in Song
related to switching of attributes and action between
developmental lines. Further, it is submitted that the
reason such switching in the present invention may be
interactively easily done is that all of the plurality of
lines are simultaneously displayed. In Song, e.g. Fig. 3,
each of the development lines are individually displayed
with a description devoid of any suggestion that attributes
or actions may be switched to other unseen developmental
lines. Examiner admits that Song does not expressly
disclose switching to other development lines but argues
that such switching would be obvious. Applicants submit
that in view of the vagueness of the Song disclosure, such
switching is far from obvious.

Claims 23, 24, 26, 27, 29, and 30 are submitted to be
patentable over Song for all of the reasons set forth above
for the claims from which they depend. In addition, these
set forth an implementation wherein a set of attributes of a
checkpoint may be displayed at the checkpoint. The Examiner
argues that this is suggested by Fig. and col 4, lines 50-55
in Song. However, the Examiner has already contended that
each of the thirty five status boxes in Song's Fig. 3 were
checkpoints with Yes/No indicators as to whether the
documentation had been developed. The Examiner can not
argue now that the same status boxes are now a display of
attributes for the thirty five listed status boxes. There
is no additional display of attributes in Song as described
in the specification of the present invention.

The rejection of claims 7, 14, and 21 as obvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a) is also respectfully traversed.

Claims 7, 14, and 21 are submitted to be patentable over Song for all of the reasons set forth above for the claims from which they depend. In addition, these claims set forth an implementation that the means for tracking are remote from the display on which the plurality of product line are displayed and the tracking means communicate the tracked data to the display system where the tracked data is stored. Since Song does not disclose this, the Examiner goes to a combination with Hopwood. In the data tracking and management system of Hopwood, even if the data tracking could arguably be said to be remote from the display on which the data is shown, there appears to be no suggestion that the tracked data is stored in association with this display. In Hopwood, the data tracked remotely from the display appears to also be stored remotely from the display.

Accordingly, it is submitted that Song even when combined with Hopwood still does not suggest the invention defined in claims 7, 14, and 21.

Conclusion

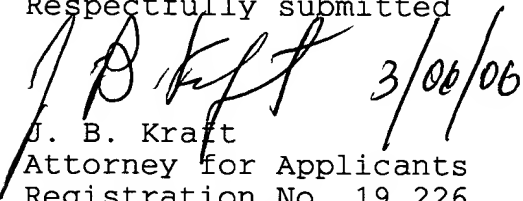In view of the foregoing, it is submitted that:

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated under 35 USC 102(b) by Song et al. US5,949,999;

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are unobvious over Song et al. under 35 U.S.C. 103(a); and

Claims 7, 14, and 21 are unobvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a).

Accordingly, the Board of Appeals is respectfully requested to reverse the final rejection and find claims 1-31 in condition for allowance.

Respectfully submitted

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(512) 473-2303

PLEASE MAIL ALL CORRESPONDENCE TO:

> **Jeffrey S. LaBaw**
> **IPLaw Dept. - IMAD 4054**
> **IBM Corporation**
> **11400 Burnet Road**

VIII. Claims on Appeal (Appendix)

1   1.   A computer controlled display system for tracking the
2   development of complex software products having a plurality
3   of developmental lines comprising:
4   means for setting in each of said plurality of
5   developmental lines, a sequence of checkpoints;
6   means for tracking each of said developmental lines to
7   determine the reached checkpoints; and
8   means for simultaneously displaying said plurality of
9   developmental lines and indicating said reached checkpoints.

1   2.   The computer controlled display system of claim 1
2   further including:
3   means for modifying said developmental lines and said
4   checkpoints; and
5   means for displaying said modifications.

1   3.   The computer controlled display system of claim 2
2   further including means for displaying at each of said
3   checkpoints, a set of developmental attributes for said
4   checkpoint.

1   4.   The computer controlled display system of claim 3
2   further including:
3   means for modifying said developmental attributes for
4   each of said checkpoints; and
5   means for displaying said modifications at each of said
6   checkpoints.

1 5. The computer controlled display system of claim 3
2 wherein said developmental attributes include actions
3 performed in said software product development.

1 6. The computer controlled display system of claim 5
2 wherein said means for modifying said actions switch said
3 actions to other of said developmental lines.

1 7. The computer controlled display system of claim 2
2 wherein:
3   said means for tracking are remote from said means for
4 displaying,
5   and said system further includes:
6   means for storing, in association with said means for
7 displaying, the data tracked by said means for tracking; and
8   means for communicating the data tracked to said means
9 for storing.

1 8. A method for tracking the development of complex
2 software products having a plurality of developmental lines
3 on a computer controlled display comprising:
4   setting in each of said plurality of developmental
5 lines, a sequence of checkpoints;
6   tracking each of said developmental lines to determine
7 the reached checkpoints; and
8   simultaneously displaying said plurality of
9 developmental lines and indicating said reached checkpoints.

1 9. The method for tracking of claim 8 further including the
2 steps of:
3   modifying said developmental lines and said
4 checkpoints; and
5   displaying said modifications.

1   10.   The method for tracking of claim 9 further including
2   the step of displaying at each of said checkpoints, a set of
3   developmental attributes for said checkpoint.

1   11.   The method for tracking of claim 10 further including
2   the steps of:
3   modifying said developmental attributes of a plurality
4   of said checkpoints; and
5   displaying said modifications at each of said modified
6   checkpoints.

1   12.   The method for tracking of claim 10 wherein said
2   developmental attributes include actions performed in said
3   software product development.

1   13.   The method for tracking of claim 12 wherein said step
2   of modifying said actions switches said actions to other of
3   said developmental lines.

1   14.   The method for tracking of claim 9 wherein:
2   said step of tracking is carried out remote from said
3   displaying step,
4   and further including the steps of:
5   storing, in association with said displaying step, the
6   data tracked in said tracking step; and
7   communicating the data tracked to said storing step.

1   15.   A computer program having code recorded on a computer
2   readable medium for tracking, on a computer controlled
3   display, the development of complex software products having
4   a plurality of developmental lines comprising:
5   means for setting in each of said plurality of
6   developmental lines, a sequence of checkpoints;
7   means for tracking each of said developmental lines to
8   determine the reached checkpoints; and
9   means for simultaneously displaying said plurality of
10   developmental lines and indicating said reached checkpoints.

1   16.   The computer program of claim 15 further including:
2   means for modifying said developmental lines and said
3   checkpoints; and
4   means for displaying said modifications.

1   17.   The computer program of claim 16 further including
2   means for displaying at each of said checkpoints, a set of
3   developmental attributes for said checkpoint.

1   18.   The computer program of claim 17 further including:
2   means for modifying said developmental attributes for
3   each of said checkpoints; and
4   means for displaying said modifications at each of said
5   checkpoints.

1   19.   The computer program of claim 17 wherein said
2   developmental attributes include actions performed in said
3   software product development.

1   20.   The computer program of claim 19 wherein said means for
2   modifying said actions switch said actions to other of said
3   developmental lines.

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1 21. The computer program of claim 16 wherein:

2 said means for tracking are remote from said means for

3 displaying,

4 and said system further includes:

5 means for storing, in association with said means for

6 displaying, the data tracked by said means for tracking; and

7 means for communicating the data tracked to said means

8 for storing.

1 22. A computer controlled display system for tracking the

2 building of a program product from a functional

3 implementation stage to a complete integrated program

4 product comprising:

5 a plurality of developmental lines respectively

6 corresponding to each of a plurality of program components

7 to be integrated into said complete program product;

8 means for setting in each of said plurality of

9 developmental lines, a sequence of checkpoints;

10 means for tracking each of said developmental lines to

11 determine the reached checkpoints; and

12 means for simultaneously displaying said plurality of

13 developmental lines and indicating said reached checkpoints.

1 23. The computer controlled display system of claim 22

2 further including means for displaying at each of said

3 checkpoints, a set of attributes for said checkpoint related

4 to the compatibility functions of said checkpoint line.

1   24. The computer controlled display system of claim 23
2   further including:
3   means for modifying said attributes for each of said
4   checkpoints; and
5   means for displaying said modifications at each of said
6   checkpoints.

1   25. A method for tracking, on a computer controlled
2   display, the building of a program product from a functional
3   implementation stage to a complete integrated program
4   product comprising:
5   setting up a plurality of developmental lines
6   respectively corresponding to each of a plurality of program
7   components to be integrated into said complete program
8   product;
9   setting up in each of said plurality of developmental
10 lines, a sequence of checkpoints;
11   tracking each of said developmental lines to determine
12 the reached checkpoints; and
13   simultaneously displaying said plurality of
14 developmental lines and indicating said reached checkpoints.

1   26. The method for tracking of claim 25 further including
2   the step of displaying at each of said checkpoints, a set of
3   attributes for said checkpoint related to the compatibility
4   functions of said checkpoint line.

1   27. The method for tracking of claim 26 further including
2   the steps of:
3   modifying said attributes for each of said checkpoints;
4   and
5   displaying said modifications at each of said
6   checkpoints.

1   28.   A computer program having code recorded on a computer
2   readable medium for tracking, on a computer controlled
3   display, the building of a program product from a functional
4   implementation stage to a complete integrated program
5   product comprising:
6   means for tracking a plurality of developmental lines
7   respectively corresponding to each of a plurality of program
8   components to be integrated into said complete program
9   product;
10   means for setting in each of said plurality of
11   developmental lines, a sequence of checkpoints;
12   means for determining the reached checkpoints in each
13   of said plurality of developmental lines; and
14   means for simultaneously displaying said plurality of
15   developmental lines and indicating said reached checkpoints.

1   29.   The computer program of claim 28 further including
2   means for displaying at each of said checkpoints, a set of
3   attributes for said checkpoint related to the compatibility
4   functions of said checkpoint line.

1   30.   The computer program of claim 29 further including:
2   means for modifying said attributes for each of said
3   checkpoints; and
4   means for displaying said modifications at each of said
5   checkpoints.

31. A method for tracking the development of complex software products having a plurality of developmental lines on a computer controlled display comprising:

    setting in each of said plurality of developmental lines, a sequence of checkpoints;

    tracking each of said developmental lines to determine the reached checkpoints;

    modifying said developmental lines and said checkpoints including the switching of an action required at the checkpoint to a checkpoint in another developmental line;

    simultaneously displaying, remote from said tracking, said plurality of developmental lines indicating said reached checkpoints, and modifications to said developmental lines and said checkpoints;

    storing, in association with said displaying step, the data tracked in said tracking step; and

    communicating the data tracked to said storing step.

IX. Evidence

There is no evidence presented.

X. Related Proceedings

None

PATENT
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	:	Examiner: J. J. Romano
Arnold J. Daks et al.	:	Intellectual Property
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IN SAID LINES	:	
Date: 3/06/06	:	

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
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Sir:

    This is an Appeal from the Final Rejection of Claims
1-31 of this Application. An Appendix containing a copy of
each of the Claims is attached.

I. Real Party in Interest

    The real party in interest is International Business
Machines Corporation, the assignee of the present
Application.

II. Related Appeals and Interferences

                None

III. Status of Claims

A.   TOTAL NUMBER OF CLAIMS IN APPLICATION

There are 31 claims in this Application.

B.   STATUS OF ALL THE CLAIMS

1.   Claims cancelled: None.
2.   Claims withdrawn from consideration but not cancelled: None.
3.   Claims pending: 1-31.
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C. CLAIMS ON APPEAL

Claims on appeal: Claims 1-31.

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V.   Summary of Invention

Claim 1 which is annotated with respect to the Specification and Drawings has the same elements as all of the independent claims herein: 1, 8, 15, 22, 25, 28, and 31.

1.   A computer controlled display system (Fig. 3, described on Page 9, lines 3-18, for tracking the development of complex software products having a plurality of developmental lines (Fig. 3 lines 51, described on page 9, line 32 to page 10, line 5) comprising:

means for setting in each of said plurality of developmental lines, a sequence of checkpoints; (checkpoints: 1-5; 1A-3A; 6A-6C; 7A; 7-12; and 21-24, Fig. 3, described page 10, lines 10-13)

means for tracking each of said developmental lines to determine the reached checkpoints; (checkpoints 1, 2A, 7A, 7-9, 21 and 22, Fig. 4, described on page 10, lines 14-18); and

means for simultaneously displaying said plurality of developmental lines and indicating said reached checkpoints (page 10, lines 14-18 indicates the checkpoints reached in plurality of developmental lines 51, Fig. 4).

In addition, dependent claims 6, 13, and 20, to be argued separately, set forth an implementation: when the checkpoints are modified, the modification may involve switching of actions from one of the plurality of lines to another (page 11, lines 9-11, referring to Fig. 6 and page 12, lines 9-12, referring to Fig. 9, steps 76-78).

Dependent claims 23, 24, 26, 27, 29, and 30, to be argued separately, describe an implementation wherein a set of attributes of the checkpoint are displayed at the checkpoint (page 12, lines 7-9 referring to Fig. 9, step 76).

Dependent claims 7, 14, and 21 to be argued separately set forth a limitation wherein the means for tracking are remote from the display on which the plurality of lines are displayed (page 7, lines 7-12 referring to Fig. 10

VI. Grounds of Rejection

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are rejected as anticipated under 35 USC 102(b) by Song et al. US5,949,999.

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are rejected as obvious over Song et al. under 35 U.S.C. 103(a).

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VII. Argument

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated under 35 USC 102(b) by Song et al. US5,949,999.

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developmental lines each with indicated reached and
unreached checkpoints.

Please consider typical claim 1 in this connection:

1. A computer controlled display system for tracking
the development of complex software products having a
plurality of developmental lines comprising:
    means for setting in each of said plurality of
developmental lines, a sequence of checkpoints;
    means for tracking each of said developmental lines to
determine the reached checkpoints; and
    means for simultaneously displaying said plurality of
developmental lines and indicating said reached checkpoints.

Song does not teach setting in each of a plurality of
developmental lines a sequence of checkpoints. The Examiner
points to col 3, lines 57 and 58. This a very vague
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There is some very general statement about defining
procedures and documents required during the project
execution. It is submitted that such a vague and general
statement does not meet the 35 USC 102 requirement that the
reference has to teach without modification the claimed
element: "setting in each of said plurality of developmental
lines, a sequence of checkpoints"
    The Examiner also cites Fig. 3 in Song for this
teaching. Fig. 3 has a very short and general description
of the measurement of a variety of elements in a software
support document at various stages in the development of a
product component, and little else. It is not seen what the
Examiner regards as his check points. Does the Examiner
intend that every element of every stage in the development
of the product component is a check point? Is so, how is

"tracking each of said developmental lines to determine the reached checkpoints" carried out in Song 's Fig. 3 which the Examiner also cites for disclosing this last element?

The Examiner cites col 3, lines 58-62 as teaching this setting of check points. At best this section state that a marked or designated activity indicates that the software support document for that activity is available. As stated in col 2, lines 8-23, these support software documentation is often required by law. It is submitted that indicating the existence of documentation for a given activity at a given phase of a single component is not "simultaneously displaying said plurality of developmental lines and indicating said reached checkpoints". Figure 3 in Song at most shows stages in the documentation, of a single developmental line and does not disclose the tracking check point stages in a plurality of developmental lines.

Examiner's Argument:

The Examiner insists that Fig. 3 of Song shows the tracking of check points simultaneously in multiple product developmental lines. In order to read Song on the claims, the Examiner argues (in the bottom paragraph of the final rejection) that there are several components listed in Fig. 2, e.g. Systems Functions,.....Patient and File Functions, ...Filming, ...etc., and that the multiple check points of this plurality of components are then tracked in the columns of Fig. 3. The description in Song does not support such an connection and interpretation of Fig. 2 with respect to Fig. 3. Applicants submit Fig. 3 shows the documentation at multiple development stages of a single component or product. Col 4, lines 53-55, indicates that the Fig. 3 relates to the status of documentation of a highlighted selected component. "Each column in the panel shows the

status of the documentation within one development phase"
(col 4, lines 59-60). It is submitted that each column
represents one development phase of a one component, and
that all of the columns in Fig. 3 collectively represent
several developmental stages of that component. Each column
represents a list of the documents which may be available
for that Stage (column). A reading of the headings in Fig.
3 would make it clear to one skilled in the art that
anything analogous to a product development line would be
progressing in the header (X-axis) direction sequence:
Requirement > Concept > Design > Implementation >
Integration as the development line progressed.

It is submitted that, for the reasons set forth
hereinabove, the Examiner's difficult interpretation of the
general and vague disclosure of Song does not meet the very
specific requirements of 35 USC 102 that the reference must
clearly teach every element of the invention without
modification. It is submitted that Song fails to disclose
every element of the invention without modification as
required for a rejection under 35 USC 102 of claims 1-5, 8-
12, 15-19, 22, 25 and 28.

**The rejection of claims 6, 13, 20, 23, 24, 26, 27, 29, and
30 as obvious over Song et al under 35 U.S.C. 103(a) is also
respectfully traversed.**

Dependent claims 6, 13, and 20 are submitted to be
patentable over Song for all of the reasons set forth above
for the claims from which they depend. In addition, these
claims set forth an implementation when modifying the
actions required of checkpoints, the modification may
include switching of the actions to other of said plurality
of developmental lines. The Examiner concedes that Song
does not disclose this but relies on some vague statements

in Song about changes to contend that such switching is suggested by Song. Applicants can find nothing in Song related to switching of attributes and action between developmental lines. Further, it is submitted that the reason such switching in the present invention may be interactively easily done is that all of the plurality of lines are simultaneously displayed. In Song, e.g. Fig. 3, each of the development lines are individually displayed with a description devoid of any suggestion that attributes or actions may be switched to other unseen developmental lines. Examiner admits that Song does not expressly disclose switching to other development lines but argues that such switching would be obvious. Applicants submit that in view of the vagueness of the Song disclosure, such switching is far from obvious.

Claims 23, 24, 26, 27, 29, and 30 are submitted to be patentable over Song for all of the reasons set forth above for the claims from which they depend. In addition, these set forth an implementation wherein a set of attributes of a checkpoint may be displayed at the checkpoint. The Examiner argues that this is suggested by Fig. and col 4, lines 50-55 in Song. However, the Examiner has already contended that each of the thirty five status boxes in Song's Fig. 3 were checkpoints with Yes/No indicators as to whether the documentation had been developed. The Examiner can not argue now that the same status boxes are now a display of attributes for the thirty five listed status boxes. There is no additional display of attributes in Song as described in the specification of the present invention.

The rejection of claims 7, 14, and 21 as obvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a) is also respectfully traversed.

Claims 7, 14, and 21 are submitted to be patentable over Song for all of the reasons set forth above for the claims from which they depend. In addition, these claims set forth an implementation that the means for tracking are remote from the display on which the plurality of product line are displayed and the tracking means communicate the tracked data to the display system where the tracked data is stored. Since Song does not disclose this, the Examiner goes to a combination with Hopwood. In the data tracking and management system of Hopwood, even if the data tracking could arguably be said to be remote from the display on which the data is shown, there appears to be no suggestion that the tracked data is stored in association with this display. In Hopwood, the data tracked remotely from the display appears to also be stored remotely from the display.

Accordingly, it is submitted that Song even when combined with Hopwood still does not suggest the invention defined in claims 7, 14, and 21.

Conclusion

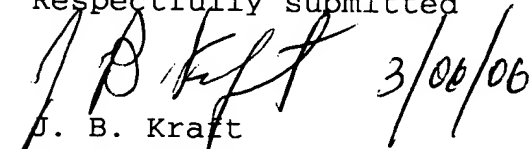In view of the foregoing, it is submitted that:

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated under 35 USC 102(b) by Song et al. US5,949,999;

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are unobvious over Song et al. under 35 U.S.C. 103(a); and

Claims 7, 14, and 21 are unobvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a).

Accordingly, the Board of Appeals is respectfully requested to reverse the final rejection and find claims 1-31 in condition for allowance.

Respectfully submitted

J. B. Kraft   3/06/06

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PLEASE MAIL ALL CORRESPONDENCE TO:

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VIII. Claims on Appeal (Appendix)

1   1.   A computer controlled display system for tracking the
2   development of complex software products having a plurality
3   of developmental lines comprising:
4   means for setting in each of said plurality of
5   developmental lines, a sequence of checkpoints;
6   means for tracking each of said developmental lines to
7   determine the reached checkpoints; and
8   means for simultaneously displaying said plurality of
9   developmental lines and indicating said reached checkpoints.

1   2.   The computer controlled display system of claim 1
2   further including:
3   means for modifying said developmental lines and said
4   checkpoints; and
5   means for displaying said modifications.

1   3.   The computer controlled display system of claim 2
2   further including means for displaying at each of said
3   checkpoints, a set of developmental attributes for said
4   checkpoint.

1   4.   The computer controlled display system of claim 3
2   further including:
3   means for modifying said developmental attributes for
4   each of said checkpoints; and
5   means for displaying said modifications at each of said
6   checkpoints.

1 5. The computer controlled display system of claim 3
2 wherein said developmental attributes include actions
3 performed in said software product development.

1 6. The computer controlled display system of claim 5
2 wherein said means for modifying said actions switch said
3 actions to other of said developmental lines.

1 7. The computer controlled display system of claim 2
2 wherein:
3   said means for tracking are remote from said means for
4 displaying,
5   and said system further includes:
6   means for storing, in association with said means for
7 displaying, the data tracked by said means for tracking; and
8   means for communicating the data tracked to said means
9 for storing.

1 8. A method for tracking the development of complex
2 software products having a plurality of developmental lines
3 on a computer controlled display comprising:
4   setting in each of said plurality of developmental
5 lines, a sequence of checkpoints;
6   tracking each of said developmental lines to determine
7 the reached checkpoints; and
8   simultaneously displaying said plurality of
9 developmental lines and indicating said reached checkpoints.

1 9. The method for tracking of claim 8 further including the
2 steps of:
3   modifying said developmental lines and said
4 checkpoints; and
5   displaying said modifications.

1   10.   The method for tracking of claim 9 further including
2   the step of displaying at each of said checkpoints, a set of
3   developmental attributes for said checkpoint.

1   11.   The method for tracking of claim 10 further including
2   the steps of:
3   modifying said developmental attributes of a plurality
4   of said checkpoints; and
5   displaying said modifications at each of said modified
6   checkpoints.

1   12.   The method for tracking of claim 10 wherein said
2   developmental attributes include actions performed in said
3   software product development.

1   13.   The method for tracking of claim 12 wherein said step
2   of modifying said actions switches said actions to other of
3   said developmental lines.

1   14.   The method for tracking of claim 9 wherein:
2   said step of tracking is carried out remote from said
3   displaying step,
4   and further including the steps of:
5   storing, in association with said displaying step, the
6   data tracked in said tracking step; and
7   communicating the data tracked to said storing step.

1   15.   A computer program having code recorded on a computer
2   readable medium for tracking, on a computer controlled
3   display, the development of complex software products having
4   a plurality of developmental lines comprising:
5   means for setting in each of said plurality of
6   developmental lines, a sequence of checkpoints;
7   means for tracking each of said developmental lines to
8   determine the reached checkpoints; and
9   means for simultaneously displaying said plurality of
10 developmental lines and indicating said reached checkpoints.

1   16.   The computer program of claim 15 further including:
2   means for modifying said developmental lines and said
3   checkpoints; and
4   means for displaying said modifications.

1   17.   The computer program of claim 16 further including
2   means for displaying at each of said checkpoints, a set of
3   developmental attributes for said checkpoint.

1   18.   The computer program of claim 17 further including:
2   means for modifying said developmental attributes for
3   each of said checkpoints; and
4   means for displaying said modifications at each of said
5   checkpoints.

1   19.   The computer program of claim 17 wherein said
2   developmental attributes include actions performed in said
3   software product development.

1   20.   The computer program of claim 19 wherein said means for
2   modifying said actions switch said actions to other of said
3   developmental lines.

1 21. The computer program of claim 16 wherein:

2   said means for tracking are remote from said means for

3 displaying,

4   and said system further includes:

5   means for storing, in association with said means for

6 displaying, the data tracked by said means for tracking; and

7   means for communicating the data tracked to said means

8 for storing.

1 22. A computer controlled display system for tracking the

2 building of a program product from a functional

3 implementation stage to a complete integrated program

4 product comprising:

5   a plurality of developmental lines respectively

6 corresponding to each of a plurality of program components

7 to be integrated into said complete program product;

8   means for setting in each of said plurality of

9 developmental lines, a sequence of checkpoints;

10   means for tracking each of said developmental lines to

11 determine the reached checkpoints; and

12   means for simultaneously displaying said plurality of

13 developmental lines and indicating said reached checkpoints.

1 23. The computer controlled display system of claim 22

2 further including means for displaying at each of said

3 checkpoints, a set of attributes for said checkpoint related

4 to the compatibility functions of said checkpoint line.

1 24. The computer controlled display system of claim 23
2 further including:
3   means for modifying said attributes for each of said
4 checkpoints; and
5   means for displaying said modifications at each of said
6 checkpoints.

1 25. A method for tracking, on a computer controlled
2 display, the building of a program product from a functional
3 implementation stage to a complete integrated program
4 product comprising:
5   setting up a plurality of developmental lines
6 respectively corresponding to each of a plurality of program
7 components to be integrated into said complete program
8 product;
9   setting up in each of said plurality of developmental
10 lines, a sequence of checkpoints;
11   tracking each of said developmental lines to determine
12 the reached checkpoints; and
13   simultaneously displaying said plurality of
14 developmental lines and indicating said reached checkpoints.

1 26. The method for tracking of claim 25 further including
2 the step of displaying at each of said checkpoints, a set of
3 attributes for said checkpoint related to the compatibility
4 functions of said checkpoint line.

1 27. The method for tracking of claim 26 further including
2 the steps of:
3   modifying said attributes for each of said checkpoints;
4 and
5   displaying said modifications at each of said
6 checkpoints.

1 28. A computer program having code recorded on a computer
2 readable medium for tracking, on a computer controlled
3 display, the building of a program product from a functional
4 implementation stage to a complete integrated program
5 product comprising:
6   means for tracking a plurality of developmental lines
7 respectively corresponding to each of a plurality of program
8 components to be integrated into said complete program
9 product;
10   means for setting in each of said plurality of
11 developmental lines, a sequence of checkpoints;
12   means for determining the reached checkpoints in each
13 of said plurality of developmental lines; and
14   means for simultaneously displaying said plurality of
15 developmental lines and indicating said reached checkpoints.

1 29. The computer program of claim 28 further including
2 means for displaying at each of said checkpoints, a set of
3 attributes for said checkpoint related to the compatibility
4 functions of said checkpoint line.

1 30. The computer program of claim 29 further including:
2   means for modifying said attributes for each of said
3 checkpoints; and
4   means for displaying said modifications at each of said
5 checkpoints.

31. A method for tracking the development of complex software products having a plurality of developmental lines on a computer controlled display comprising:

setting in each of said plurality of developmental lines, a sequence of checkpoints;

tracking each of said developmental lines to determine the reached checkpoints;

modifying said developmental lines and said checkpoints including the switching of an action required at the checkpoint to a checkpoint in another developmental line;

simultaneously displaying, remote from said tracking, said plurality of developmental lines indicating said reached checkpoints, and modifications to said developmental lines and said checkpoints;

storing, in association with said displaying step, the data tracked in said tracking step; and

communicating the data tracked to said storing step.

IX. Evidence

There is no evidence presented.

X. Related Proceedings

None

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: : Group Art Unit: 2192
                                 : Examiner: J. J. Romano
Arnold J. Daks et al.   : Intellectual Property
Serial No: 09/666,004   : Law Department - 4054
Filed: 08/28/001   : International Business
Title: A COMPUTER CONTROLLED   : Machines Corporation
DISPLAY SYSTEM FOR TRACKING   : 11400 Burnet Road
THE DEVELOPMENT OF SOFTWARE   : Austin, Texas 78758
PRODUCTS HAVING A PLURALITY   : Customer No. 32,329
OF DEVELOPMENT LINES THROUGH   :
THE MONITORING OF SEQUENCES   :
OF CHECKPOINTS RESPECTIVELY   :
IN SAID LINES   :
Date: _3/06/06_____   :

BRIEF ON APPEAL

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
Sir:

     This is an Appeal from the Final Rejection of Claims
1-31 of this Application. An Appendix containing a copy of
each of the Claims is attached.

I.   Real Party in Interest

     The real party in interest is International Business
Machines Corporation, the assignee of the present
Application.

II.   Related Appeals and Interferences
                     None

AUS920010767US1   1

III. Status of Claims

A.   TOTAL NUMBER OF CLAIMS IN APPLICATION

There are 31 claims in this Application.

B.   STATUS OF ALL THE CLAIMS

1.   Claims cancelled: None.
2.   Claims withdrawn from consideration but not cancelled: None.
3.   Claims pending: 1-31.
4.   Claims allowed: None.
5.   Claims rejected: 1-31.

C. CLAIMS ON APPEAL

Claims on appeal: Claims 1-31.

IV.   Status of Amendment

No amendments have been filed after Final Rejection.

V. Summary of Invention

Claim 1 which is annotated with respect to the Specification and Drawings has the same elements as all of the independent claims herein: 1, 8, 15, 22, 25, 28, and 31.

1. A computer controlled display system (Fig. 3, described on Page 9, lines 3-18, for tracking the development of complex software products having a plurality of developmental lines (Fig. 3 lines 51, described on page 9, line 32 to page 10, line 5) comprising:

means for setting in each of said plurality of developmental lines, a sequence of checkpoints; (checkpoints: 1-5; 1A-3A; 6A-6C; 7A; 7-12; and 21-24, Fig. 3, described page 10, lines 10-13)

means for tracking each of said developmental lines to determine the reached checkpoints; (checkpoints 1, 2A, 7A, 7-9, 21 and 22, Fig. 4, described on page 10, lines 14-18); and

means for simultaneously displaying said plurality of developmental lines and indicating said reached checkpoints (page 10, lines 14-18 indicates the checkpoints reached in plurality of developmental lines 51, Fig. 4).

In addition, dependent claims 6, 13, and 20, to be argued separately, set forth an implementation: when the checkpoints are modified, the modification may involve switching of actions from one of the plurality of lines to another (page 11, lines 9-11, referring to Fig. 6 and page 12, lines 9-12, referring to Fig. 9, steps 76-78).

Dependent claims 23, 24, 26, 27, 29, and 30, to be argued separately, describe an implementation wherein a set of attributes of the checkpoint are displayed at the checkpoint (page 12, lines 7-9 referring to Fig. 9, step 76).

Dependent claims 7, 14, and 21 to be argued separately
set forth a limitation wherein the means for tracking are
remote from the display on which the plurality of lines are
displayed (page 7, lines 7-12 referring to Fig. 10

VI. Grounds of Rejection

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are rejected as
anticipated under 35 USC 102(b) by Song et al. US5,949,999.

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are
rejected as obvious over Song et al. under 35 U.S.C. 103(a).

Claims 7, 14, and 21 are rejected as obvious over Song
et al. in view of Hopwood et al. (US6,223,343) under 35
U.S.C. 103(a).

VII. Argument

**Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated
under 35 USC 102(b) by Song et al. US5,949,999.**

Song is not an anticipatory reference under 35 USC 102.
In order to reject under 35 USC 102, the reference must
teach every element of the invention without modification.
Applicants submit that Song does not do this. The present
invention claims the combination, in tracking the
development of software products, (as set forth in claim 1)
of means for setting and displaying a sequence of
checkpoints in each of a plurality of developmental lines
and means for determining which checkpoints have reached in
each developmental line and indicating the reached
checkpoints on the simultaneous display of a plurality
developmental development lines. While Song is concerned
with software development and may permit user access to what
may be considered developmental lines, Song does not appear
to be concerned with a collective display of a plurality of

developmental lines each with indicated reached and
unreached checkpoints.

Please consider typical claim 1 in this connection:

1. A computer controlled display system for tracking
the development of complex software products having a
plurality of developmental lines comprising:
means for setting in each of said plurality of
developmental lines, a sequence of checkpoints;
means for tracking each of said developmental lines to
determine the reached checkpoints; and
means for simultaneously displaying said plurality of
developmental lines and indicating said reached checkpoints.

Song does not teach setting in each of a plurality of
developmental lines a sequence of checkpoints. The Examiner
points to col 3, lines 57 and 58. This a very vague
citation. It deals with a procedure for producing software
documents for a software development and testing process.
There is some very general statement about defining
procedures and documents required during the project
execution. It is submitted that such a vague and general
statement does not meet the 35 USC 102 requirement that the
reference has to teach without modification the claimed
element: "setting in each of said plurality of developmental
lines, a sequence of checkpoints"

The Examiner also cites Fig. 3 in Song for this
teaching. Fig. 3 has a very short and general description
of the measurement of a variety of elements in a software
support document at various stages in the development of a
product component, and little else. It is not seen what the
Examiner regards as his check points. Does the Examiner
intend that every element of every stage in the development
of the product component is a check point? Is so, how is

"<u>tracking each</u> of said developmental lines <u>to determine the</u>
<u>reached checkpoints</u>" carried out in Song 's Fig. 3 which the
Examiner also cites for disclosing this last element?

The Examiner cites col 3, lines 58-62 as teaching this
setting of check points. At best this section state that a
marked or designated activity indicates that the software
support document for that activity is available. As stated
in col 2, lines 8-23, these support software documentation
is often required by law. It is submitted that indicating
the existence of documentation for a given activity at a
given phase of a single component is not "<u>simultaneously</u>
<u>displaying</u> said plurality of developmental lines and
<u>indicating said reached checkpoints</u>". Figure 3 in <u>Song</u> at
most shows <u>stages in the documentation, of a single</u>
<u>developmental line</u> and does <u>not disclose the tracking check</u>
<u>point stages in a plurality of developmental lines</u>.

<u>Examiner's Argument:</u>

The Examiner insists that Fig. 3 of Song shows the
tracking of check points simultaneously in multiple product
developmental lines. In order to read Song on the claims,
the Examiner argues (in the bottom paragraph of the final
rejection) that there are several components listed in Fig.
2, e.g. Systems Functions,.....Patient and File Functions,
...Filming, ...etc., and that the multiple check points of
this plurality of components are then tracked in the columns
of Fig. 3. The description in Song does not support such an
connection and interpretation of Fig. 2 with respect to Fig.
3. Applicants submit Fig. 3 shows the documentation at
multiple development stages of a single component or
product. Col 4, lines 53-55, indicates that the Fig. 3
relates to the status of documentation of a highlighted
selected component. "Each column in the panel shows the

status of the documentation within one development phase"
(col 4, lines 59-60). It is submitted that each column
represents one development phase of a one component, and
that all of the columns in Fig. 3 collectively represent
several developmental stages of that component. Each column
represents a list of the documents which may be available
for that Stage (column). A reading of the headings in Fig.
3 would make it clear to one skilled in the art that
anything analogous to a product development line would be
progressing in the header (X-axis) direction sequence:
Requirement > Concept > Design > Implementation >
Integration as the development line progressed.

It is submitted that, for the reasons set forth
hereinabove, the Examiner's difficult interpretation of the
general and vague disclosure of Song does not meet the very
specific requirements of 35 USC 102 that the reference must
clearly teach every element of the invention without
modification. It is submitted that Song fails to disclose
every element of the invention without modification as
required for a rejection under 35 USC 102 of claims 1-5, 8-
12, 15-19, 22, 25 and 28.

**The rejection of claims 6, 13, 20, 23, 24, 26, 27, 29, and
30 as obvious over Song et al under 35 U.S.C. 103(a) is also
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Dependent claims 6, 13, and 20 are submitted to be
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actions required of checkpoints, the modification may
include switching of the actions to other of said plurality
of developmental lines. The Examiner concedes that Song
does not disclose this but relies on some vague statements

in Song about changes to contend that such switching is suggested by Song. Applicants can find nothing in Song related to switching of attributes and action between developmental lines. Further, it is submitted that the reason such switching in the present invention may be interactively easily done is that all of the plurality of lines are simultaneously displayed. In Song, e.g. Fig. 3, each of the development lines are individually displayed with a description devoid of any suggestion that attributes or actions may be switched to other unseen developmental lines. Examiner admits that Song does not expressly disclose switching to other development lines but argues that such switching would be obvious. Applicants submit that in view of the vagueness of the Song disclosure, such switching is far from obvious.

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The rejection of claims 7, 14, and 21 as obvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a) is also respectfully traversed.

Claims 7, 14, and 21 are submitted to be patentable over Song for all of the reasons set forth above for the claims from which they depend. In addition, these claims set forth an implementation that the means for tracking are remote from the display on which the plurality of product line are displayed and the tracking means communicate the tracked data to the display system where the tracked data is stored. Since Song does not disclose this, the Examiner goes to a combination with Hopwood. In the data tracking and management system of Hopwood, even if the data tracking could arguably be said to be remote from the display on which the data is shown, there appears to be no suggestion that the tracked data is stored in association with this display. In Hopwood, the data tracked remotely from the display appears to also be stored remotely from the display.

Accordingly, it is submitted that Song even when combined with Hopwood still does not suggest the invention defined in claims 7, 14, and 21.

Conclusion

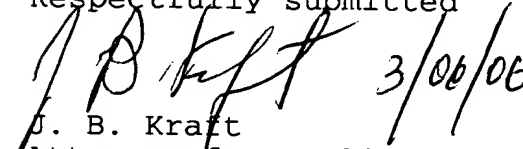In view of the foregoing, it is submitted that:

Claims 1-5, 8-12, 15-19, 22, 25 and 28 are not anticipated under 35 USC 102(b) by Song et al. US5,949,999;

Claims 6, 13, 20, 23, 24, 26, 27, 29, and 30 are unobvious over Song et al. under 35 U.S.C. 103(a); and

Claims 7, 14, and 21 are unobvious over Song et al. in view of Hopwood et al. (US6,223,343) under 35 U.S.C. 103(a).

Accordingly, the Board of Appeals is respectfully requested to reverse the final rejection and find claims 1-31 in condition for allowance.

Respectfully submitted

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PLEASE MAIL ALL CORRESPONDENCE TO:

Jeffrey S. LaBaw
IPLaw Dept. - IMAD 4054
IBM Corporation
11400 Burnet Road

VIII. Claims on Appeal (Appendix)

1   1.   A computer controlled display system for tracking the
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3   of developmental lines comprising:
4   means for setting in each of said plurality of
5   developmental lines, a sequence of checkpoints;
6   means for tracking each of said developmental lines to
7   determine the reached checkpoints; and
8   means for simultaneously displaying said plurality of
9   developmental lines and indicating said reached checkpoints.

1   2.   The computer controlled display system of claim 1
2   further including:
3   means for modifying said developmental lines and said
4   checkpoints; and
5   means for displaying said modifications.

1   3.   The computer controlled display system of claim 2
2   further including means for displaying at each of said
3   checkpoints, a set of developmental attributes for said
4   checkpoint.

1   4.   The computer controlled display system of claim 3
2   further including:
3   means for modifying said developmental attributes for
4   each of said checkpoints; and
5   means for displaying said modifications at each of said
6   checkpoints.

1   5.   The computer controlled display system of claim 3
2   wherein said developmental attributes include actions
3   performed in said software product development.

1   6.   The computer controlled display system of claim 5
2   wherein said means for modifying said actions switch said
3   actions to other of said developmental lines.

1   7.   The computer controlled display system of claim 2
2   wherein:
3   said means for tracking are remote from said means for
4   displaying,
5   and said system further includes:
6   means for storing, in association with said means for
7   displaying, the data tracked by said means for tracking; and
8   means for communicating the data tracked to said means
9   for storing.

1   8.   A method for tracking the development of complex
2   software products having a plurality of developmental lines
3   on a computer controlled display comprising:
4   setting in each of said plurality of developmental
5   lines, a sequence of checkpoints;
6   tracking each of said developmental lines to determine
7   the reached checkpoints; and
8   simultaneously displaying said plurality of
9   developmental lines and indicating said reached checkpoints.

1   9.   The method for tracking of claim 8 further including the
2   steps of:
3   modifying said developmental lines and said
4   checkpoints; and
5   displaying said modifications.

1 10.   The method for tracking of claim 9 further including
2 the step of displaying at each of said checkpoints, a set of
3 developmental attributes for said checkpoint.

1 11.   The method for tracking of claim 10 further including
2 the steps of:
3   modifying said developmental attributes of a plurality
4 of said checkpoints; and
5   displaying said modifications at each of said modified
6 checkpoints.

1 12.   The method for tracking of claim 10 wherein said
2 developmental attributes include actions performed in said
3 software product development.

1 13.   The method for tracking of claim 12 wherein said step
2 of modifying said actions switches said actions to other of
3 said developmental lines.

1 14.   The method for tracking of claim 9 wherein:
2   said step of tracking is carried out remote from said
3 displaying step,
4   and further including the steps of:
5   storing, in association with said displaying step, the
6 data tracked in said tracking step; and
7   communicating the data tracked to said storing step.

1   15.   A computer program having code recorded on a computer
2   readable medium for tracking, on a computer controlled
3   display, the development of complex software products having
4   a plurality of developmental lines comprising:
5   means for setting in each of said plurality of
6   developmental lines, a sequence of checkpoints;
7   means for tracking each of said developmental lines to
8   determine the reached checkpoints; and
9   means for simultaneously displaying said plurality of
10 developmental lines and indicating said reached checkpoints.

1   16.   The computer program of claim 15 further including:
2   means for modifying said developmental lines and said
3   checkpoints; and
4   means for displaying said modifications.

1   17.   The computer program of claim 16 further including
2   means for displaying at each of said checkpoints, a set of
3   developmental attributes for said checkpoint.

1   18.   The computer program of claim 17 further including:
2   means for modifying said developmental attributes for
3   each of said checkpoints; and
4   means for displaying said modifications at each of said
5   checkpoints.

1   19.   The computer program of claim 17 wherein said
2   developmental attributes include actions performed in said
3   software product development.

1   20.   The computer program of claim 19 wherein said means for
2   modifying said actions switch said actions to other of said
3   developmental lines.

1   21. The computer program of claim 16 wherein:
2   said means for tracking are remote from said means for
3   displaying,
4   and said system further includes:
5   means for storing, in association with said means for
6   displaying, the data tracked by said means for tracking; and
7   means for communicating the data tracked to said means
8   for storing.

1   22. A computer controlled display system for tracking the
2   building of a program product from a functional
3   implementation stage to a complete integrated program
4   product comprising:
5   a plurality of developmental lines respectively
6   corresponding to each of a plurality of program components
7   to be integrated into said complete program product;
8   means for setting in each of said plurality of
9   developmental lines, a sequence of checkpoints;
10   means for tracking each of said developmental lines to
11   determine the reached checkpoints; and
12   means for simultaneously displaying said plurality of
13   developmental lines and indicating said reached checkpoints.

1   23. The computer controlled display system of claim 22
2   further including means for displaying at each of said
3   checkpoints, a set of attributes for said checkpoint related
4   to the compatibility functions of said checkpoint line.

1   24.   The computer controlled display system of claim 23
2   further including:
3   means for modifying said attributes for each of said
4   checkpoints; and
5   means for displaying said modifications at each of said
6   checkpoints.

1   25.   A method for tracking, on a computer controlled
2   display, the building of a program product from a functional
3   implementation stage to a complete integrated program
4   product comprising:
5   setting up a plurality of developmental lines
6   respectively corresponding to each of a plurality of program
7   components to be integrated into said complete program
8   product;
9   setting up in each of said plurality of developmental
10 lines, a sequence of checkpoints;
11   tracking each of said developmental lines to determine
12 the reached checkpoints; and
13   simultaneously displaying said plurality of
14 developmental lines and indicating said reached checkpoints.

1   26.   The method for tracking of claim 25 further including
2   the step of displaying at each of said checkpoints, a set of
3   attributes for said checkpoint related to the compatibility
4   functions of said checkpoint line.

1   27.   The method for tracking of claim 26 further including
2   the steps of:
3   modifying said attributes for each of said checkpoints;
4   and
5   displaying said modifications at each of said
6   checkpoints.

1   28. A computer program having code recorded on a computer
2   readable medium for tracking, on a computer controlled
3   display, the building of a program product from a functional
4   implementation stage to a complete integrated program
5   product comprising:
6   means for tracking a plurality of developmental lines
7   respectively corresponding to each of a plurality of program
8   components to be integrated into said complete program
9   product;
10   means for setting in each of said plurality of
11 developmental lines, a sequence of checkpoints;
12   means for determining the reached checkpoints in each
13 of said plurality of developmental lines; and
14   means for simultaneously displaying said plurality of
15 developmental lines and indicating said reached checkpoints.

1   29. The computer program of claim 28 further including
2   means for displaying at each of said checkpoints, a set of
3   attributes for said checkpoint related to the compatibility
4   functions of said checkpoint line.

1   30. The computer program of claim 29 further including:
2   means for modifying said attributes for each of said
3   checkpoints; and
4   means for displaying said modifications at each of said
5   checkpoints.

31. A method for tracking the development of complex
software products having a plurality of developmental lines
on a computer controlled display comprising:

    setting in each of said plurality of developmental
lines, a sequence of checkpoints;

    tracking each of said developmental lines to determine
the reached checkpoints;

    modifying said developmental lines and said checkpoints
including the switching of an action required at the
checkpoint to a checkpoint in another developmental line;

    simultaneously displaying, remote from said tracking,
said plurality of developmental lines indicating said
reached checkpoints, and modifications to said developmental
lines and said checkpoints;

    storing, in association with said displaying step, the
data tracked in said tracking step; and

    communicating the data tracked to said storing step.

IX. Evidence

There is no evidence presented.

X. Related Proceedings

    None